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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,865	09/19/2003	Nobuyuki Nakamura	01590CD/HG	6753
1933	7590	10/24/2005	EXAMINER	
FRISHAUF, HOLTZ, GOODMAN & CHICK, PC 220 5TH AVE FL 16 NEW YORK, NY 10001-7708			YEE, DEBORAH	
			ART UNIT	PAPER NUMBER
			1742	

DATE MAILED: 10/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/665,865

Applicant(s)

NAKAMURA ET AL.

Examiner

Deborah Yee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3 is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☒ Claim(s) 2 and 4 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☒ Certified copies of the priority documents have been received in Application No. 09/961843.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Specification***

1. The disclosure is objected to because of the following informalities: In applicant's test data, some steel sheets are listed as comparative examples yet meet the claimed process steps of the present invention. See steel 18 in Table 4 on page 21; steel 37 in Table 6 on page 24; and steel 63 in table 9 on page 29.

Appropriate correction is required.

### ***Claim Objections***

2. Claim 4 is objected to because of the following informalities: Since claim 4 is not dependent on claim 3, the formula limitation recited by claim 4 should not be dependent on claim 3. It is recommended to incorporate formula (2) into claim 4. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese patent 403044422 for the reasons set forth in the previous office action dated 6-13-05.

***Response to Arguments***

5. Applicant's arguments filed 8-09-05 have been fully considered but they are not persuasive. It was submitted that the English abstract of JP'422 discloses a steel containing Sb in an amount of 0.01 to 0.10% for effectively preventing decarburization on a hot-rolled sheet surface and thereby, descaling becomes unnecessary. In contrast, the present invention alloy does not contain Sb. It is the examiner's position that Sb is added only to avoid the extra step of decarburization, and it would seem an obvious modification to omit Sb if one skilled in art preferred to decarburize. Note that the omission of an element with the consequent loss of its function would not be a patentable distinction.

6. In regard to the process, it is the examiner's position that it would be well within the skill of the artisan to omit Sb and then decarburize, which would meet recited claim 1. Since process and compositional steps are closely met, then high hardness values would also be expected.

***Allowable Subject Matter***

7. Claim 2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. Claim 3 is allowed.
9. Claim 4 would be allowable if rewritten or amended to overcome the objection, set forth in this Office action.
10. The following is a statement of reasons for the indication of allowable subject matter: The art of record does not teach or fairly suggest the method of producing a high carbon steel sheet, as claimed, by continuously casting a JIS steel, rough rolling, coiling, descaling, annealing at T1 for 20 hours or longer, cold rolling at a reduction rate of 50% or higher, annealing at T2 wherein the temperature T1 and the temperature T2 satisfy the formula (1)  $T2 = 1024 - 0.6 \text{ to } 1202 - 0.80 \times T1$  or formula (2)  $T2 = 1010 - 0.59 \times T1 \text{ to } 1210 - 0.8 \times T1$ . Criticality of the annealing temperatures and formulas are established in applicant's test data in Tables 1 to 17 and figures 3 and 4 in order to obtain planar anisotropy wherein the r-value (delta R) is at least than 0.2 to provide dimensional precision when forming.

### ***Conclusion***

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

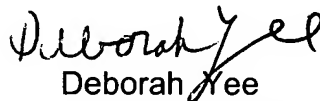
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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deborah Yee whose telephone number is 571-272-1253. The examiner can normally be reached on Monday-Friday from 6:00 to 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Deborah Yee  
Primary Examiner  
Art Unit 1742

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